NYU’s Center for Urban Science and Progress announces partnerships with four national laboratories

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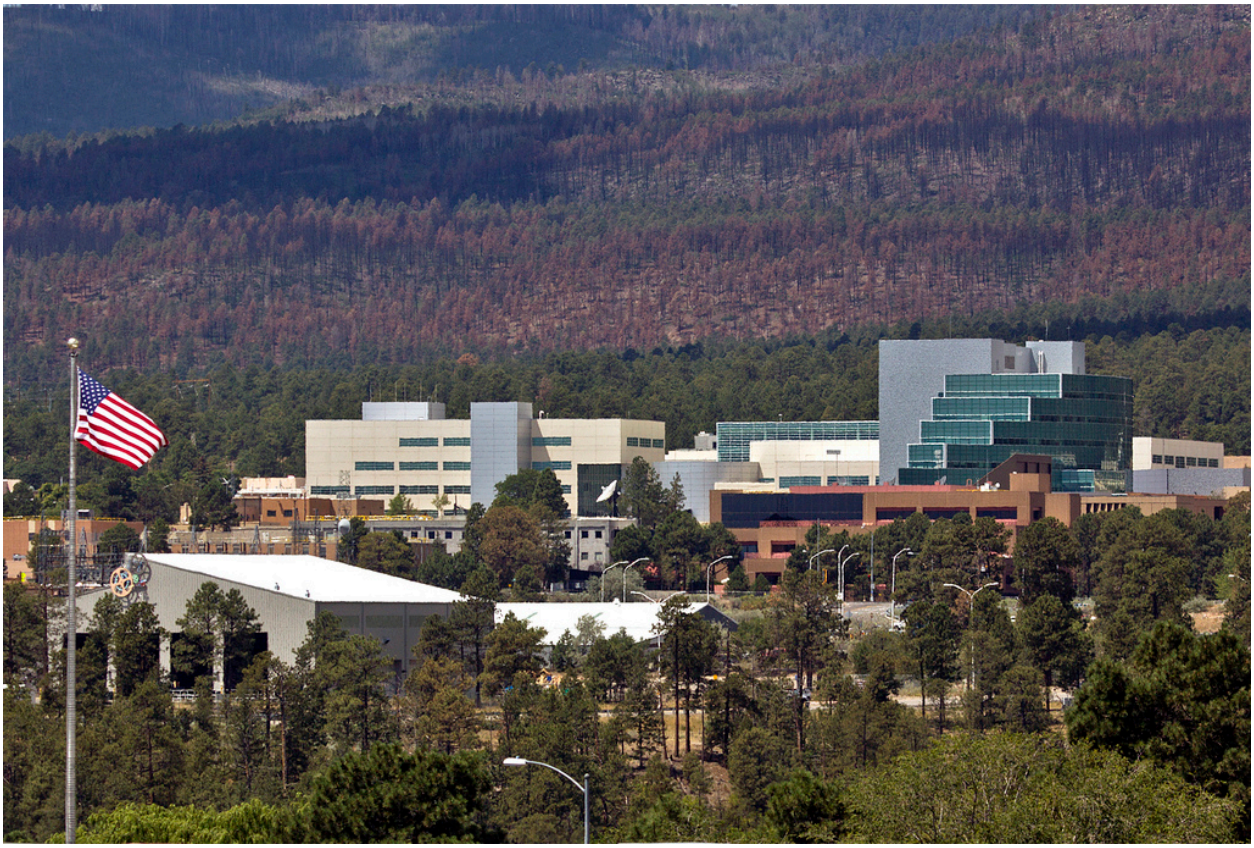

NYU’s Center for Urban Science and Progress (CUSP) announced today its partnership with four of the U.S. Department of Energy’s (DOE) laboratories: Brookhaven National Laboratory, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Sandia National Laboratories.

Several of the National Laboratories have prior experience working with City of New York agencies, and CUSP will benefit from that experience. “The collaboration between CUSP and the national laboratories presents an exciting opportunity to work with New York City’s agencies in a unique way,” said Steven Koonin, Director of CUSP. “CUSP and the laboratories can bring tools and techniques to the table not commonly applied

to urban issues in original ways that I believe will improve the quality of life for New York City residents."

DOE National Labs are consistently home to the most powerful supercomputers. According the most recent list on Top500.org, Lawrence Livermore National Laboratory hosts the second fastest computer in the world. With the National Laboratories as partners, CUSP will gain access to high performance computing resources and extensive expertise in the creation of predictive models and analytics for emergency management, transportation, energy efficiency, and water use – just some of the major systems of a city.

Each of these laboratories broadens the knowledge and expertise available to CUSP in fundamental ways:

- Brookhaven National Laboratory, located on the east end of Long Island, has significant expertise in renewable energy, including resource evaluation and grid integration of these technologies in cities all across of the country. Brookhaven brings to CUSP its long relationship with the New York State Energy Research and Development Authority (NYSERDA) working on projects focusing on energy transmission and storage, such as analysis of commercial and residential heating system efficiency. "We're excited to partner with CUSP and have an opportunity to use our scientific expertise, research tools, and relationships to help solve some of the urban issues faced by a major city like New York," said Brookhaven Lab Director Doon Gibbs.
- Using state of the art scientific simulation tools, Lawrence Livermore National Laboratory (LLNL) has developed some of the highest resolution climate simulations, which helps understand the impacts of climate change at the regional level. "We are extremely pleased about this new collaboration with CUSP," said LLNL Director Parney Albright. "Livermore is renowned for its expertise in high-performance computing, modeling, simulation, and systems analysis and it's an important part of our mission to apply these technologies, working closely with academic institutions, the private sector, and Lawrence Livermore National Laboratory (LLNL) has developed cities for the public good. We look forward to working with CUSP's outstanding team. Lawrence Livermore National Lab is located in the San Francisco Bay Area.
- Los Alamos National Laboratory, near Santa Fe, NM, pursues significant research efforts in the fields of Information Science & Technology, building upon historic strengths in computer simulation and large- scale computation. Coupled with depth in sensor and instrumentation systems and "uncertainty quantification," the Los Alamos researchers' expertise in these areas should greatly contribute to CUSP's efforts to efficiently collect and analyze data throughout New York City. "Los Alamos is honored to participate in the CUSP partnership," said LANL Director Charles McMillan. "It turns out, solving issues of this scale and magnitude usually leads to breakthroughs in unexpected areas. We learn as much as our partners."
- Sandia National Laboratories, in Albuquerque, NM, piloted the Standard Unified Modeling, Mapping and Integration Toolkit (SUMMIT) software architecture at the Federal Emergency Management Agency (FEMA) National Level Exercise (NLE) in 2011. SUMMIT is software that combines data, modeling, and simulation tools to create calculable scenarios for enhanced national preparedness exercises. Sandia is also the lead designer for the Smart Power Infrastructure Demonstration for Energy Reliability and Security (SPIDERS), which works to reduce the risks

of power outages in critical facilities including hospitals. "The opportunity to apply Sandia's world-class expertise in modeling, energy, and emergency preparedness to some of the real problems facing New York and other urban communities is exciting to our engineers and scientists," said Paul Hommert Sandia President and Laboratories Director. "I'm confident that bringing CUSP researchers here will benefit Sandia and the nation."

"Collaboration between NYU'S Center for Urban Science and Progress and the Department of Energy's laboratories is an indication of New York's growth in the science and technology industry," said U.S. Senator Charles E. Schumer. "Long Island's own Brookhaven National Lab has always underscored the importance of education and has a long history of maintaining strong relationships with universities and students. This partnership will provide CUSP students with unique opportunities and access to important resources and the research developed through this collaboration is sure to improve New York City as a whole. I look forward to seeing real solutions materialize from this exciting partnership."

CUSP will benefit broadly from having the national laboratories as partners. The laboratories will host CUSP students through co-op programs, summer student internships, and fellowship opportunities. Likewise, CUSP faculty and our corporate and city agency partners will be able to tap into the expertise of senior lab scientists when they are in residence at CUSP working on joint projects. Laboratory staff will also have the chance to teach remotely or while in residence at CUSP.

About New York University's Center for Urban Science and ProgressCUSP is an applied science research institute created by New York University and NYU-Poly with a consortium of world-class universities and the foremost international technology companies to address the needs of cities. At the heart of its academic program, CUSP will investigate and develop solutions to the challenges that face cities around the world. This research will make CUSP the world's leading authority in the emerging field of "urban informatics."